

AMENDMENT(S) TO THE SPECIFICATION

Please add a paragraph beginning at page 1, line 3:

CROSS REFERENCE TO RELATED APPLICATION

The present application is a 35 U.S.C. §§ 371 national phase conversion of PCT/EP2004/009679, filed 31 August 2004, which claims priority of Austrian Application No. AT 1539/2003, filed 29 September 2003. The PCT International Application was published in the German language.

Please replace the paragraph beginning at page 1, line 3, with the following rewritten paragraph:

BACKGROUND OF THE INVENTION

The invention relates to a rolling mill drive with drive spindles, which are arranged between drive units and driven rolls and which terminate in spindle heads[[, one]]. One spindle head in each case ~~being~~ is connected detachably to the neck of a roll, in particular of a working roll[[, a]]. A coupling and decoupling device ~~being~~ is arranged between the neck of the roll and the spindle head of the drive spindle.

Please replace the paragraph beginning at page 1, line 11, with the following rewritten paragraph:

The working rolls used in roll stands are driven by electric motors either directly or via supporting or intermediate rolls[[, the]]. The transmission of the drive torque to the height-adjustable rolls ~~taking~~ takes place via drive spindles in order to compensate for the angular displacements caused by different rolling strip thicknesses. The drive spindles can be formed by articulated shafts or toothed spindles and make length compensation possible in the axial direction. Pinion gearings or twin drive gearings are usually additionally interposed between the drive motors and the drive spindles. During day-to-day rolling operation, the working rolls are subjected to great mechanical stresses and, on account of constant rolling program change, they also have to be exchanged frequently. This requires a coupling and decoupling device appropriate to these great stresses

between the neck of the driven roll and the drive spindle transmitting the drive torque. A number of such releasable connecting elements are already known but do not adequately meet the requirements with regard to mechanical loadability and short coupling and decoupling times with high operational reliability and a low maintenance requirement.

Please insert the following section heading at page 4, line 17:

SUMMARY OF THE INVENTION

Please replace the paragraph beginning at page 4, line 24, with the following rewritten paragraph:

According to the invention, this object is achieved by ~~virtue of the fact that the~~ a coupling and decoupling device. ~~It includes~~ ~~consists of~~ a coupling sleeve, a coupling pin inserted releasably into the coupling sleeve and a locking element which is arranged displaceably transversely to the axis of rotation of the neck of the roll[[],]. The locking element is inserted into the coupling sleeve and engages behind the coupling pin in an operating position[[], and the]] of the locking element. The locking element is designed to be capable of being coupled to a displacing device. The design of the locking element as a component which can be displaced from outside in the radial direction between a fixed operating position and an opened mounting position makes possible simple construction of this locking element and of the bores necessary for insertion of the locking element into the coupling sleeve in terms of production and also problem-free, canting-free and largely tolerance-insensitive release of the heavy components when roll change takes place.

Please replace the paragraph beginning at page 5, line 16, with the following rewritten paragraph:

In a development of the invention, the coupling pin comprises a foot plate for end-side fastening to the neck of the roll and a coupling hook with at least one locking surface which projects from this foot plate[[], a]]. A longitudinal groove with at least one counter-locking surface is milled into the

locking element. For ~~[[and, for]]~~ guiding the coupling hook in and out, the longitudinal groove has a coupling opening at one location~~[[,]].~~ ~~For the locking element can for releasing and connecting the locking element,~~ the coupling and decoupling device be brought by means of the displacing device into a release position in which the coupling opening in the locking element is aligned with the coupling hook. The ~~and the~~ locking element can be brought into an operating position in which the locking surface on the coupling hook lies opposite the counter-locking surface on the locking element.

Please replace the paragraph beginning at page 7, line 19, with the following rewritten paragraph:

For performing roll change in the roll stand, it is necessary before decoupling to support the articulated spindle in its position in the region of the coupling sleeve. In order for it to be possible to perform the supporting operation and the immediately following unlocking operation in as short a period of time as possible, the coupling sleeve has a peripheral annular groove~~[[, at]].~~ At least one supporting surface of a spindle support lies opposite this annular groove and this at least one supporting surface is designed to be capable of being brought into engagement with the annular groove in a way supporting the coupling sleeve~~[[, and in]].~~ In addition, the displacing device for the locking element is connected to the locking element to ensure synchronous movement of the displacing device and of the supporting surface of the spindle support.

Please insert the following section heading at page 8, line 22:

BRIEF DESCRIPTION OF THE DRAWINGS

Please insert the following section heading at page 9, line 11:

DESCRIPTION OF A PREFERRED EMBODIMENT

Please replace the paragraph beginning at page 10, line 4, with the following rewritten paragraph:

A roll change requires rapid mechanized decoupling of the rolls 2, 3 from the drive unit 6. This is brought about by a coupling and decoupling device 13, which connects the neck 9, 10 of a roll to the spindle head 11 of a drive spindle 7, 8 in an easily detachable way. Before roll change, which takes place on the operating side in the direction of the roll axis of rotation 14, 15, the drive spindles 7, 8 and the associated coupling and decoupling device 13 are supported in their operating position by means of a spindle support 16, which can be moved in, and held in alignment with the roll axis of rotation 14, 15. At the same time, a displacing device 17 for actuating the coupling and decoupling device 13 is displaced into an operating position, and then the release position necessary for the decoupling operation is set by actuating the displacing device 17 and the rolls 2, 3 are removed from the roll stand 1 with the aid of a roll change carriage (not illustrated). In the same way, after a new roll set consisting essentially of the two rolls and the associated installation parts has been introduced into the stand uprights 4, 5, the coupling and decoupling device ~~[[13]]~~ 17 is brought into the locked position and the displacing device 13 and the spindle support 16 are moved back into a retracted position which allows roll operation.